

REPORT OF THE COMMITTEE ON CITY WASTES: THE ECONOMICS OF WASTE COLLECTION AND DISPOSAL.

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OFTEN after a city, town, or village has settled the question of the desirability of a system of waste collection and disposal, another, and a very vital question arises—that of providing the necessary funds. There are several ways in which this problem may be met. First, by letting the whole thing to a contractor and allowing him to charge each householder a certain sum, fixed by ordinance for receiving the service. Provision should be made by ordinance compelling every householder and business house to employ the service. If the work is done at all it should all be done. The authority for compulsory collection has been established by two decisions of the supreme court of the United States, one in a case brought from the courts in Detroit, and the other from San Francisco. The decisions set aside the constitutional property rights there may be in garbage for the benefit to the public health.

Another way for a city to pay for the service is out of the funds raised from general taxation. This simplifies the method of securing the necessary money to carry on the work. As mentioned before the service should extend to every citizen.

Sometimes if the funds to be raised by taxation are already large, the serv-

ice is apt to be curtailed by scant appropriations. Everyone should be compelled to accept the service. You want the whole city clean, not a place here and there. If the city makes its estimates upon the budget system then it is quite certain that the amount to be raised for any system of collection and disposal will always be considered large.

This leads us to the consideration of a method of taxing for this service in much the same way as is done in some cities for the raising of money for street sprinkling. An opinion given by the city attorney of our own city has a bearing directly upon this very important subject. The attorney was asked, "Would it be possible to provide for the handling of garbage, ashes, manure, rubbish, etc., by assessment upon the property? How would such an assessment be levied? Would the funds created and arising from such assessment be separate and apart from the appropriation for current expenses?" In the efforts to keep down the expenses of the departments under Council authority it has been suggested that the money for the collection and disposal of garbage, ashes, rubbish, manure, etc., might be raised outside of the regular levy, and thereby to that extent, at least, afford relief to the

current expense fund. The section under consideration does not seem to be specific with regard to the authority to cover the expense of disposal, although it is apparently plain the authority is conveyed to assess the expense of removal, but no mention is made of "disposal," or are both comprehended in the act of "removing."

He replied as follows:

"1. That the charter provision to which you refer distinctly authorizes the Council 'to require and provide for the removal throughout the city or in such districts, or on such streets thereof, as it deems proper' of any and all swill, offal, garbage, ashes, barnyard litter, manure, rubbish, yard clearings, the contents of any privy, vault, cesspool or sink, dead animals, or any other foul or unhealthy stuff or material." I venture to say, in passing, that this enumeration of offensive things, the disposal whereof is contemplated, seems broad enough to embrace noxious weeds and plants which occasion disease.

"2. The duty thus laid upon the Council is accompanied by authority to 'assess the expense of such removal upon the property from which such above named matter or things shall be taken.' Also by power to enter into five-year contracts, if that is deemed advisable, with any person who will engage to perform the service.

"3. The fund arising from such assessments would be distinct from the regular tax levy for current city expenses. Like the special assessment for street sprinkling, the proceeds would be set apart for the one purpose and could be devoted to no other.

"4. It seems to me that this power of assessment is not limited to the charging against each lot of the cost of cleansing the particular lot. The naming of districts or streets to be so cared for implies, I think, that a uniform assessment may be laid upon the area or frontage designated, thus creating a fund out of which the cost of serving the whole district shall be paid. The provision that the whole may be done by contract is inconsistent with the idea of collecting the fund by piecemeal. It is the district that is to be assessed, thus equalizing the charge. Upon that theory vacant lots, no less than such as are occupied, would share the burden. This is true of all other special assessments, the ground of the tax being that the improvement, or the service (sprinkling for example), adds to the value of the property whether occupied or not. Moreover the very condition of vacancy often invites the deposit of offensive matter which should be removed. This suggests a new method of providing money for this very necessary service. With a system of collection and disposal inaugurated the question of doing the work as cheaply as possible and deriving any revenue becomes a question of the evolution of the service."

GARBAGE.

The possibility of deriving revenue from the use of garbage has ever been an inviting one. The feeding of hogs, the extraction of grease, the development of steam to be utilized, all have their advocates. The sanitary features and the consideration of the public health should always outweigh

any prospect of financial return. Pig-feeding has been made profitable under certain conditions. It is doubtful if the conditions surrounding collection and final feeding are ever without some considerable nuisance. The extraction of the greases and the utilization of the resulting tankage have been considered as profitable ventures. The limitations are the conditions surrounding the can, the lack of plenty of material, and the constantly increasing amount of grease in the garbage. Disposal by fire and the utilization of the developed steam has been carried on extensively in England and to a degree in this country. It has not as yet reached its highest possibilities owing to the lack of opportunity of utilizing the developed steam for the whole 24-hour period. The limitations are governed somewhat by the character of the collected waste, the regulations of household preparation, the opportunities for complete utilization, and the ability to use auxiliary fuel and power.

ASHES.

Ashes may be used profitably for the purposes of filling low lands. Theoretically, it has been shown that there is a considerable of unburned carbon in ashes from hard coal. A number of analyses in our own city showed this to be about 30 per cent. Any value arising from this source is apt to be used in the cost of getting the separation done, in the extra cost of hauling to central points for handling, and in caring for the nuisance occasioned by the operation of sifting. In destructor plants the ashes are used as auxiliary

fuel, but unfortunately for successful continuous operation, the ashes are least abundant when they are most needed as fuel to assist in burning. There have been suggestions as to the use of sifted ashes for taking the place of sand for some kinds of concrete work, but nothing practical has come of it.

RUBBISH.

Buffalo, Rochester, and other cities have demonstrated that rubbish disposal can be done at profit. The reclaiming of paper, rags, bottles, rubbers, tin cans, and other rubbish has been profitably done.

MANURE.

Manure is always worth more than the cost of collecting it for fertilizer. It is sold in many cities for such purposes. The method of securing collections and making the sales are different in different cities. It properly should be returned to the soil and its removal from the cities is going to be demanded in the future on account of the fly nuisance.

Street sweepings, of course, so long as they contain manure should be included in the disposal.

NIGHT-SOIL.

Night-soil should be disposed of by the municipality so long as the danger from fly infection is a real one. Attempts have been made in the past to produce fertilizer from it, but with indifferent success. By doing the collecting the city can assure odorless operations and proper disposal. The old out-door closet is rapidly disap-

pearing from our cities. Plumbing is no longer considered as a luxury but a necessity.

The economical collection and disposal of city waste demands a study of all the possibilities of utilization. If the work is assumed as a whole by the city and done well the citizens will support it, but if the service is inefficient the complaints of increased taxes are long and loud. The possibilities of complete efficient collection and disposal we have never seen realized. The demonstration is yet to be made.

It is probably more closely approximated in Havana and the Canal Zone than in any other part of the world. In the Canal Zone we have been shown that the service is not expensive. There it was instituted and is carried on as a health measure, and this probably accounts for the efficiency of the service. May we not draw a conclusion from this that the service instituted for the protection of the public health is apt to be the most efficient and the one that is supported best by the public?